

Peptide Array, Dengue Virus Type 4 (DEN-4), Singapore/8976/1995, NS3 Protein

Catalog No. NR-2756

This reagent is the tangible property of the U.S. Government.

Product Description: The 106-peptide array spans the NS3 protein of Dengue virus type 4, Singapore/8976/1995 (GenPept: AAV31422). Peptides are 15- to 17-mers, with 11 or 12 amino acid overlaps.

Lot: N1031-1 to N1031-106

The following information applies to all peptides:

- Appearance
- Mass spectral analysis
- Counter Ion

White lyophilized powder
Correct MW by MALDI-TOF
Trifluoroacetate

Peptide-specific information is shown in the two tables below.

Table 1							
Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
1 of 106	11/3/2006	17	1 SGALWDVPSPAATQKAA 17	1669.87	-0.04	87.8%	88.0%
2 of 106	11/3/2006	17	7 VPSPAATQKAALSEGVIY 23	1688.91	0.08	98.3%	88.1%
3 of 106	11/3/2006	17	13 TQKAALSEGVYRIMQRG 29	1908.23	-0.53	100.0%	80.7%
4 of 106	11/3/2006	17	19 SEGVYRIMQRLFGKTQ 35	1970.30	-0.6	97.2%	81.2%
5 of 106	11/3/2006	17	25 IMQRLFGKTQVGVIH 41	1841.23	0.29	90.7%	80.2%
6 of 106	11/3/2006	17	31 FGKTQVGVIHIEGVFH 47	1825.12	0.45	83.7%	80.0%
7 of 106	11/3/2006	17	37 VGVHIEGVFHTMWHVT 53	1920.24	0.57	91.9%	80.8%
8 of 106	11/3/2006	17	42 IEGVFHTMWHVTRGSI 58	1969.31	0.47	90.3%	81.2%
9 of 106	11/3/2006	17	48 TMWHVTRGSVICHETGR 64	1970.28	-0.36	88.4%	77.6%
10 of 106	11/3/2006	17	54 RGSVICHETGRLEPSWA 70	1898.15	-0.47	90.0%	80.6%
11 of 106	11/3/2006	17	60 HETGRLEPSWADVRNDM 76	2013.19	-1.32	93.2%	81.5%
12 of 106	11/3/2006	17	65 LEPSWADVRNDMISYGG 81	1910.11	-0.5	99.8%	89.3%
13 of 106	11/3/2006	17	71 DVRNDMISYGGGWRLGD 87	1911.10	-0.78	97.6%	84.8%
14 of 106	11/3/2006	17	77 ISYGGGWRLGDKWDKEE 93	1996.18	-1.38	85.7%	81.4%
15 of 106	11/3/2006	17	83 WRLGDKWDKEEDVQVLA 99	2087.34	-1.04	94.7%	82.1%
16 of 106	11/3/2006	17	89 WDKEEDVQVLAIEPGKN 105	1970.18	-0.98	98.2%	85.2%
17 of 106	11/3/2006	17	95 VQVLAIEPGKNPKHVQT 111	1858.19	-0.39	95.6%	80.3%
18 of 106	11/3/2006	17	100 IEPGKNPKHVQTKPLF 116	1890.23	-0.96	98.7%	76.8%
19 of 106	11/3/2006	17	106 PKHVQTKPLFKTLTGE 122	1881.22	-0.79	100.0%	76.7%
20 of 106	11/3/2006	17	112 KPGLFKTLTGEIGAVTL 128	1745.11	0.5	98.2%	83.6%
21 of 106	11/3/2006	17	118 TLTGEIGAVTLDFKPGT 134	1719.97	0.26	97.3%	88.3%
22 of 106	11/3/2006	17	124 GAVTLDFKPGTSGSPII 140	1659.91	0.4	96.5%	87.9%
23 of 106	11/3/2006	17	130 FKPGTSGSPIINRKGKV 146	1786.12	-0.61	98.6%	75.8%
24 of 106	11/3/2006	17	136 GSPIINRKGKVIGLYGN 152	1786.12	-0.18	93.8%	79.7%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
25 of 106	11/3/2006	16	142 RKGKVIGLYGNGVVTK 157	1689.05	-0.15	90.7%	74.8%
26 of 106	11/3/2006	16	147 IGLYGNVVTKSGDYV 162	1641.86	0.27	89.6%	87.8%
27 of 106	11/3/2006	17	152 NGVVTKSGDYVSAITQA 168	1709.89	0.07	91.7%	88.2%
28 of 106	11/3/2006	16	158 SGDYVSAITQAERIGE 173	1695.82	-0.38	99.4%	88.1%
29 of 106	11/3/2006	17	163 SAITQAERIGEPDYEVD 179	1893.01	-0.79	81.4%	89.3%
30 of 106	11/3/2006	17	168 AERIGEPDYEVEDIFR 184	2053.19	-1.12	99.7%	85.7%
31 of 106	11/3/2006	17	174 PDYEVEDIFRKKRLTI 190	2137.44	-1.06	99.2%	78.9%
32 of 106	11/3/2006	16	179 DEDIFRKKRLTIMDLH 194	2030.39	-0.84	98.8%	74.8%
33 of 106	11/3/2006	17	184 RKKRLTIMDLHPGAGKT 200	1922.34	-0.91	98.4%	70.7%
34 of 106	11/3/2006	15	190 IMDLHPGAGKTKRIL 204	1650.03	-0.12	95.7%	74.3%
35 of 106	11/3/2006	17	194 HPGAGKTKRILPSIVRE 210	1859.22	-0.6	98.7%	73.1%
36 of 106	11/3/2006	17	200 TKRILPSIVREALKRRL 216	2049.56	-0.35	97.6%	72.0%
37 of 106	11/3/2006	17	206 SIVREALKRRLRTLILA 222	2008.50	0.3	94.2%	74.6%
38 of 106	11/3/2006	17	212 LKRRLRTLILAPTRVVA 228	1976.50	0.4	100.0%	74.3%
39 of 106	11/3/2006	17	218 TLILAPTRVVAEMEEA 234	1814.15	0.68	92.7%	88.8%
40 of 106	11/3/2006	17	224 TRVVAEMEEALRGLPI 240	1855.20	0.33	93.0%	84.4%
41 of 106	11/3/2006	16	229 AEMEEALRGLPIRYQT 244	1877.17	-0.59	92.3%	84.6%
42 of 106	11/3/2006	17	234 ALRGLPIRYQTPAVKSE 250	1899.24	-0.38	100.0%	80.6%
43 of 106	11/3/2006	17	240 IRYQTPAVKSEHTGREI 256	1985.25	-1.01	100.0%	77.7%
44 of 106	11/3/2006	17	246 AVKSEHTGREIVDMCH 262	1925.23	-0.25	93.0%	77.2%
45 of 106	11/3/2006	17	252 TGREIVDMCHATFTTR 268	1951.27	-0.05	80.1%	81.1%
46 of 106	11/3/2006	17	258 DLMCHATFTTRLLSSTR 274	1953.29	0.02	96.1%	81.1%
47 of 106	11/3/2006	17	264 TFTTRLLSSTRVPNYNL 280	1983.27	-0.29	97.2%	85.3%
48 of 106	11/3/2006	17	270 LSSTRVPNYNLIVMDEA 286	1922.20	0.03	99.2%	89.4%
49 of 106	11/3/2006	15	276 PNYNLIVMDEAHFTD 290	1778.97	-0.35	84.9%	88.6%
50 of 106	11/3/2006	17	280 LIVMDEAHFTDPSSVAA 296	1803.04	0.54	97.7%	88.8%
51 of 106	11/3/2006	17	286 AHFTDPSSVAARGYIST 302	1779.94	-0.08	95.1%	83.9%
52 of 106	11/3/2006	17	292 SSVAARGYISTRVEMGE 308	1813.03	-0.16	81.5%	84.1%
53 of 106	11/3/2006	17	298 GYISTRVEMGEAAAI 314	1846.17	0.59	91.2%	89.0%
54 of 106	11/3/2006	17	304 VEMGEAAAI 320	1692.99	0.59	81.2%	88.1%
55 of 106	11/3/2006	16	310 AAIFMTATPPGTTDPF 325	1637.89	0.37	95.5%	87.8%
56 of 106	11/3/2006	15	315 TATPPGTTDPFPQSN 329	1530.62	-1.09	100.0%	87.0%
57 of 106	11/3/2006	17	319 PGTTDPFPQSNPIEDI 335	1814.94	-0.91	97.2%	88.8%
58 of 106	11/3/2006	17	325 FPQSNPIEDI 341	2000.17	-1.12	98.8%	89.8%
59 of 106	11/3/2006	17	331 PIEDIEREIPERSWNTG 347	2041.22	-1.32	98.0%	85.7%
60 of 106	11/3/2006	17	337 REIPERSWNTGFDWITD 353	2122.30	-1.22	97.4%	86.1%
61 of 106	11/3/2006	17	343 SWNTGFDWITDYQGKT 359	2018.19	-0.78	89.4%	89.9%
62 of 106	11/3/2006	17	349 DWITDYQGKTWVFVPSI 365	2055.34	-0.09	85.2%	90.0%
63 of 106	11/3/2006	17	354 YQGKTWVFVPSIKAGND 370	1910.18	-0.41	85.2%	84.8%
64 of 106	11/3/2006	17	360 WVFVPSIKAGNDIANCLR 376	1904.24	0.19	99.0%	84.8%
65 of 106	11/3/2006	17	366 KAGNDIANCLRKSGKKV 382	1802.14	-0.8	100.0%	72.5%
66 of 106	11/3/2006	17	372 ANCLRKSGKKVIQLSRK 388	1929.38	-0.76	92.3%	70.7%
67 of 106	11/3/2006	17	378 SGKKVIQLSRKTFDTEY 394	2000.30	-0.95	98.6%	77.8%
68 of 106	11/3/2006	17	383 IQLSRKTFDTEYPKTKL 399	2068.42	-1.04	100.0%	78.4%
69 of 106	11/3/2006	17	389 TFDTEYPKTKLTDWDFV 405	2106.34	-0.87	95.9%	86.0%
70 of 106	11/3/2006	16	395 PKTKLTDWDFVTTDI 410	1879.16	-0.26	97.3%	84.6%

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Peptide	Date of Mfg.	Length	Sequence	Molecular Weight (amu)	Hydrophilicity	Purity by HPLC ^a	Peptide Content ^b
71 of 106	11/3/2006	17	400 TDWDFVVTDDISEMGAN 416	1901.05	-0.14	84.3%	89.3%
72 of 106	11/3/2006	17	406 VTTDISEMGANFRAGR 422	1824.06	-0.08	87.5%	84.2%
73 of 106	11/3/2006	17	411 SEMGANFRAGRVIDPRR 427	1932.21	-0.86	100.0%	77.2%
74 of 106	11/3/2006	17	417 FRAGRVIDPRRCLKPVI 433	1996.47	-0.04	89.8%	74.5%
75 of 106	11/3/2006	17	423 IDPRRCLKPVILPDGPE 439	1918.31	-0.41	92.7%	80.8%
76 of 106	11/3/2006	17	429 LKPVILPDGPVERVILAG 445	1787.19	0.56	100.0%	83.9%
77 of 106	11/3/2006	16	435 PDGPVERVILAGPIVPT 450	1630.92	0.23	100.0%	87.7%
78 of 106	11/3/2006	17	440 RVILAGPIVTPASAAQ 456	1660.99	0.81	100.0%	87.9%
79 of 106	11/3/2006	17	446 PIPVTPASAAQRRGRIG 462	1747.05	-0.32	100.0%	79.3%
80 of 106	11/3/2006	17	452 ASAAQRRGRIGRNPAQE 468	1838.03	-1.38	100.0%	76.3%
81 of 106	11/3/2006	17	458 RGRIGRNPAQEDDQYVF 474	2021.20	-1.46	99.0%	81.6%
82 of 106	11/3/2006	17	464 NPAQEDDQYVFSGDPLK 480	1923.04	-1.26	100.0%	89.4%
83 of 106	11/3/2006	17	470 DQYVFSGDPLKNDHHA 486	1950.02	-1.36	100.0%	85.1%
84 of 106	11/3/2006	17	476 GDPLKNDHHAHWTEAK 492	1963.07	-1.85	99.6%	77.5%
85 of 106	11/3/2006	17	482 DEDHAHWTEAKMLLDNI 498	2038.24	-0.9	98.9%	81.7%
86 of 106	11/3/2006	17	488 WTEAKMLLDNIYTPEGI 504	1994.31	-0.19	100.0%	89.7%
87 of 106	11/3/2006	17	494 LLDNIYTPEGIPTLFG 510	1876.20	0.62	95.3%	89.2%
88 of 106	11/3/2006	17	500 TPEGIPTLFGPEREKT 516	1885.16	-0.65	95.9%	84.6%
89 of 106	11/3/2006	17	506 PTLFGPEREKTQAIDGE 522	1888.08	-1.08	97.8%	84.7%
90 of 106	11/3/2006	17	511 PEREKTQAIDGEFRLRG 527	2002.23	-1.48	98.1%	77.8%
91 of 106	11/3/2006	17	516 TQAIDGEFRLRGEQRKT 532	2005.24	-1.42	89.7%	77.9%
92 of 106	11/3/2006	17	521 GEFRLRGEQRKTFVELM 537	2096.46	-0.8	96.2%	78.6%
93 of 106	11/3/2006	16	527 GEQRKTFVELMRRGDL 542	1935.25	-1.02	100.0%	77.2%
94 of 106	11/3/2006	17	532 TFVELMRRGDLPVWLSY 548	2082.47	0.16	98.7%	85.9%
95 of 106	11/3/2006	17	538 RRGDLPVWLSYKVASAG 554	1875.18	-0.18	95.6%	80.4%
96 of 106	11/3/2006	17	544 VWLSYKVASAGISYKDR 560	1943.25	-0.11	85.1%	81.0%
97 of 106	11/3/2006	17	550 VASAGISYKDREWCFTG 566	1890.12	-0.18	100.0%	84.7%
98 of 106	11/3/2006	17	556 SYKDREWCFTGERNNQI 572	2146.34	-1.66	91.4%	82.5%
99 of 106	11/3/2006	17	562 WCFTGERNNQILEENME 578	2113.33	-1.12	99.4%	90.3%
100 of 106	11/3/2006	17	568 RNNQILEENMEVEIWTR 584	2174.44	-1.16	83.0%	86.4%
101 of 106	11/3/2006	17	573 LEENMEVEIWTRERGEKK 589	2120.38	-1.44	92.7%	82.3%
102 of 106	11/3/2006	17	579 VEIWTRERGEKKLRPKW 595	2183.60	-1.59	98.8%	73.2%
103 of 106	11/3/2006	17	584 REGEKKLRPKWLDARV 600	2109.52	-1.7	96.5%	69.8%
104 of 106	11/3/2006	17	590 KLRPKWLDARVYADPMA 606	2030.44	-0.59	97.2%	78.1%
105 of 106	11/3/2006	17	596 LDARVYADPMALKDFKE 612	1982.30	-0.43	99.0%	81.3%
106 of 106	11/3/2006	17	602 ADPMALKDFKEFASGRK 618	1911.23	-0.75	89.8%	77.0%

^a% full-length

^bRemainder is salt and water

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
1 of 106	Expected	5.00		1.00		1.00	1.00			1.00	1.00			2.00	2.00	1.00	1.00		1.00
	Actual	5.02		1.00		0.96	1.12			0.92	1.02			2.02	1.92	0.88	0.00 ^a		0.97
2 of 106	Expected	4.00				2.00	1.00			1.00	1.00			2.00	2.00	1.00		1.00	2.00
	Actual	3.73				1.84	1.19			1.03	0.94			2.00	1.95	0.86		1.01	1.79
3 of 106	Expected	2.00	2.00			3.00	2.00		1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
	Actual	1.94	2.00			2.79	1.86		0.91	1.01	0.98	0.96			1.06	1.05		0.89	0.79
4 of 106	Expected		2.00			3.00	3.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
	Actual		2.14			2.82	3.15		0.83	0.92	0.90	0.88	1.00		1.00	1.12		0.79	0.70
5 of 106	Expected		1.00			2.00	4.00	1.00	2.00	1.00	1.00	1.00	1.00			1.00			2.00
	Actual		1.14			1.81	3.70	0.78	1.70	1.03	0.95	0.97	1.00			0.98			1.88
6 of 106	Expected					2.00	4.00	2.00	2.00		1.00		2.00			1.00			3.00
	Actual					2.00	4.20	1.91	1.83		1.11		1.78			1.05			3.02
7 of 106	Expected					1.00	3.00	3.00	2.00			1.00	1.00			2.00	1.00		3.00
	Actual					0.99	2.93	2.76	1.87			1.14	0.70			2.00	0.00 ^a		2.73
8 of 106	Expected		1.00			1.00	2.00	2.00	2.00			1.00	1.00		1.00	2.00	1.00		3.00
	Actual		1.08			0.87	2.29	2.00	1.42 ^b			1.00	1.20		1.04	1.72	0.00 ^a		2.62 ^b
9 of 106	Expected		2.00		1.00	1.00	2.00	2.00	1.00			1.00			1.00	3.00	1.00		2.00
	Actual		2.10		0.46 ^c	1.00	1.96	1.97	0.57 ^b			1.00			1.01	2.63	0.00 ^a		1.42 ^b
10 of 106	Expected	1.00	2.00		1.00	2.00	2.00	1.00	1.00	1.00				1.00	2.00	1.00	1.00		1.00
	Actual	1.00	1.82		0.52 ^c	1.75	1.97	1.15	0.53 ^b	0.93				1.11	1.77	0.91	0.00 ^a		0.50 ^b
11 of 106	Expected	1.00	2.00	3.00		2.00	1.00	1.00		1.00		1.00		1.00	1.00	1.00	1.00		1.00
	Actual	1.14	1.70	3.00		1.83	1.10	0.85		0.95		1.01		1.22	1.06	0.92	0.00 ^a		0.91
12 of 106	Expected	1.00	1.00	3.00		1.00	2.00		1.00	1.00		1.00		1.00	2.00		1.00	1.00	1.00
	Actual	1.03	0.83	2.71		0.98	1.77		0.98	1.00		1.00		1.13	1.84		0.00 ^a	1.15	0.91
13 of 106	Expected		2.00	4.00			4.00		1.00	1.00		1.00			1.00		1.00	1.00	1.00
	Actual		2.00	3.80			3.94		1.00	0.76		0.80			0.98		0.00 ^a	1.06	0.93
14 of 106	Expected		1.00	2.00		2.00	4.00		1.00	1.00	2.00				1.00		2.00	1.00	
	Actual		1.05	1.96		1.99	3.70		0.88	0.95	1.89				0.86		0.00 ^a	1.00	
15 of 106	Expected	1.00	1.00	3.00		3.00	1.00			2.00	2.00						2.00		2.00
	Actual	1.00	1.05	2.71		2.74	1.14			1.84	1.71						0.00 ^a		1.77
16 of 106	Expected	1.00		3.00		4.00	1.00		1.00	1.00	2.00			1.00			1.00		2.00
	Actual	1.08		3.00		3.80	1.25		0.85	0.74	1.71			1.14			0.00 ^a		1.98
17 of 106	Expected	1.00		1.00		3.00	1.00	1.00	1.00	1.00	2.00			2.00		1.00			3.00
	Actual	1.00		0.79		2.76	1.12	1.17	1.03	1.01	1.82			2.00		0.84			2.79
18 of 106	Expected			1.00		2.00	2.00	1.00	1.00	1.00	3.00		1.00	3.00		1.00			1.00
	Actual			0.94		1.81	1.95	1.09	0.97	0.99	2.91		0.96	2.89		0.84			1.00
19 of 106	Expected					2.00	2.00	1.00		2.00	3.00		1.00	2.00		3.00			1.00
	Actual					2.00	1.88	1.01		1.80	2.99		0.88	2.07		2.81			0.93
20 of 106	Expected	1.00				1.00	3.00		1.00	3.00	2.00		1.00	1.00		3.00			1.00
	Actual	1.07				1.00	3.09		0.79	2.92	1.91		0.91	1.08		2.70			1.05
21 of 106	Expected	1.00		1.00		1.00	3.00		1.00	2.00	1.00		1.00	1.00		4.00			1.00
	Actual	1.11		1.00		0.97	3.17		0.99	1.77	0.97		0.91	1.10		3.79			1.03
22 of 106	Expected	1.00		1.00			3.00		2.00	1.00	1.00		1.00	2.00	2.00	2.00			1.00
	Actual	0.99		0.98			3.17		1.38 ^b	1.00	0.92		1.01	1.97	1.90	1.75			1.00
23 of 106	Expected		1.00	1.00			3.00		2.00		3.00		1.00	2.00	2.00	1.00			1.00
	Actual		1.00	1.00			3.23		0.99 ^b		3.05		0.93	1.90	1.91	1.06			0.86
24 of 106	Expected		1.00	2.00			4.00		3.00	1.00	2.00			1.00	1.00			1.00	1.00
	Actual		1.07	1.84			3.76		1.39 ^b	0.95	1.76			1.00	0.93			0.98	0.53 ^b

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
25 of 106	Expected		1.00	1.00			4.00		1.00	1.00	3.00					1.00		1.00	3.00
	Actual		0.97	1.00			4.23		0.63 ^b	0.96	2.80					1.02		0.92	1.40 ^b
26 of 106	Expected			2.00			4.00		1.00	1.00	1.00				1.00	1.00		2.00	3.00
	Actual			1.79			4.04		0.99	1.06	1.16				1.01	1.00		1.72	1.70 ^b
27 of 106	Expected	2.00		2.00		1.00	2.00		1.00		1.00				2.00	2.00		1.00	3.00
	Actual	2.00		1.89		1.02	2.00		1.10		1.06				1.86	1.79		0.77	1.65 ^b
28 of 106	Expected	2.00	1.00	1.00		3.00	2.00		2.00						2.00	1.00		1.00	1.00
	Actual	2.10	1.11	0.99		2.70	2.13		1.96						1.82	0.96		0.98	1.00
29 of 106	Expected	2.00	1.00	2.00		4.00	1.00		2.00					1.00	1.00	1.00		1.00	1.00
	Actual	2.00	1.12	1.87		3.80	1.06		1.94					1.12	0.99	0.95		1.16	0.99
30 of 106	Expected	1.00	2.00	3.00		4.00	1.00		2.00				1.00	1.00				1.00	1.00
	Actual	1.00	2.03	2.93		3.76	0.99		1.74				0.74	1.03				1.03	1.01
31 of 106	Expected		2.00	3.00		2.00			2.00	1.00	2.00		1.00	1.00		1.00		1.00	1.00
	Actual		2.13	2.79		1.75			1.93	0.96	1.84		0.85	0.97		0.84		1.16	1.00
32 of 106	Expected		2.00	3.00		1.00		1.00	2.00	2.00	2.00	1.00	1.00			1.00			
	Actual		2.29	3.00		1.10		1.11	1.76	2.01	1.86	0.94	0.94			0.96			
33 of 106	Expected	1.00	2.00	1.00			2.00	1.00	1.00	2.00	3.00	1.00		1.00		2.00			
	Actual	1.00	1.78	0.90			2.00	1.16	0.77	1.71	2.70	0.90		1.04		1.61			
34 of 106	Expected	1.00	1.00	1.00			2.00	1.00	2.00	2.00	2.00	1.00		1.00		1.00			
	Actual	1.00	1.05	0.91			2.07	1.18	1.75	1.72	1.90	0.98		1.05		0.86			
35 of 106	Expected	1.00	2.00			1.00	2.00	1.00	2.00	1.00	2.00			2.00	1.00	1.00			1.00
	Actual	1.17	1.76			0.88	2.00	1.16	0.92 ^b	0.77	1.84			2.00	0.91	0.92			0.64 ^b
36 of 106	Expected	1.00	4.00			1.00			2.00	3.00	2.00			1.00	1.00	1.00			1.00
	Actual	1.20	3.75			1.00			1.45 ^b	2.72	1.80			1.22	1.03	1.00			0.67 ^b
37 of 106	Expected	2.00	4.00			1.00			2.00	4.00	1.00				1.00	1.00			1.00
	Actual	2.00	3.75			0.94			1.49 ^b	3.78	0.92				0.98	1.06			0.62 ^b
38 of 106	Expected	2.00	4.00						1.00	4.00	1.00			1.00		2.00			2.00
	Actual	1.86	4.00						0.82	3.76	0.73			1.03		2.00			0.94 ^b
39 of 106	Expected	4.00	1.00			3.00			1.00	2.00		1.00		1.00		2.00			2.00
	Actual	3.76	1.00			2.72			0.89	1.71		0.96		1.07		1.77			0.90 ^b
40 of 106	Expected	3.00	2.00			3.00	1.00		1.00	2.00		1.00		1.00		1.00			2.00
	Actual	2.74	2.00			2.71	1.04		0.98	2.00		0.97		1.04		0.91			1.02 ^b
41 of 106	Expected	2.00	2.00			4.00	1.00		1.00	2.00		1.00		1.00		1.00		1.00	
	Actual	1.96	1.85			3.69	1.24		0.87	1.90		1.07		1.25		1.00		1.21	
42 of 106	Expected	2.00	2.00			2.00	1.00		1.00	2.00	1.00			2.00	1.00	1.00		1.00	1.00
	Actual	2.00	1.79			1.79	1.15		0.80	1.86	0.95			2.12	0.96	1.04		0.99	0.92
43 of 106	Expected	1.00	2.00			3.00	1.00	1.00	2.00		1.00			1.00	1.00	2.00		1.00	1.00
	Actual	1.00	1.91			2.75	1.09	1.20	1.81		1.00			1.13	0.96	1.86		1.15	1.01
44 of 106	Expected	1.00	1.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.00			1.00	1.00			2.00
	Actual	1.09	1.19	0.96	0.46 ^c	1.87	1.07	2.17	0.52 ^b	1.03	0.72	0.89			0.95	1.00			1.35 ^b
45 of 106	Expected	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00			4.00			1.00
	Actual	1.19	1.93	1.00	0.49 ^c	0.97	1.08	1.10	0.55 ^b	1.08		1.09	0.96			3.73			0.63 ^b
46 of 106	Expected	1.00	2.00	1.00	1.00			1.00		3.00		1.00	1.00		2.00	4.00			
	Actual	1.19	2.10	0.97	0.51 ^c			1.07		2.78		0.97	1.00		2.00	3.72			
47 of 106	Expected		2.00	2.00						3.00			1.00	1.00	2.00	4.00		1.00	1.00
	Actual		2.04	2.00						2.79			0.98	1.15	2.00	3.72		0.97	1.03
48 of 106	Expected	1.00	1.00	3.00		1.00			1.00	2.00		1.00		1.00	2.00	1.00		1.00	2.00
	Actual	1.06	1.14	3.00		0.96			0.51 ^b	1.94		0.91		1.05	1.75	0.90		0.72	1.49 ^b

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
49 of 106	Expected	1.00		4.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00
	Actual	1.00		3.74		0.93		1.04	0.58 ^b	0.91		0.82	0.82	1.01		0.70		0.88	0.51 ^b
50 of 106	Expected	3.00		2.00		1.00		1.00	1.00	1.00		1.00	1.00	1.00	2.00	1.00			2.00
	Actual	2.93		1.92		0.99		1.17	0.60 ^b	1.01		0.82	1.21	1.13	2.04	1.00			1.61 ^b
51 of 106	Expected	3.00	1.00	1.00			1.00	1.00	1.00				1.00	1.00	3.00	2.00		1.00	1.00
	Actual	2.84	1.09	0.88			1.09	1.17	0.97				0.97	1.08	2.82	1.85		0.92	1.00
52 of 106	Expected	2.00	2.00			2.00	2.00		1.00			1.00			3.00	1.00		1.00	2.00
	Actual	2.03	2.08			1.85	2.06		0.96			0.94			2.88	1.00		1.03	1.85
53 of 106	Expected	3.00	1.00			2.00	2.00		2.00			2.00	1.00		1.00	1.00		1.00	1.00
	Actual	3.22	0.97			2.08	2.19		1.85			1.85	1.02		0.89	0.89		0.60	1.00
54 of 106	Expected	4.00				2.00	2.00		1.00			2.00	1.00	2.00		2.00			1.00
	Actual	3.85				1.90	2.19		1.01			1.97	0.96	1.72		1.73			1.00
55 of 106	Expected	3.00		1.00			1.00		1.00			1.00	2.00	3.00		4.00			
	Actual	2.90		1.15			1.21		1.06			1.05	1.96	3.00		3.75			
56 of 106	Expected	1.00		2.00		1.00	1.00						1.00	4.00	1.00	4.00			
	Actual	0.93		2.00		1.10	1.27						1.06	3.76	1.12	3.80			
57 of 106	Expected			3.00		2.00	1.00		2.00				1.00	4.00	2.00	2.00			
	Actual			2.86		1.82	1.21		1.98				1.07	3.89	2.00	1.87			
58 of 106	Expected		1.00	2.00		5.00			3.00				1.00	3.00	2.00				
	Actual		1.21	1.84		4.72			2.79				1.00	3.00	1.91				
59 of 106	Expected		2.00	2.00		4.00	1.00		3.00					2.00	1.00	1.00	1.00		
	Actual		2.00	2.19		3.72	0.98		3.10					2.23	1.03	0.94	0.00 ^a		
60 of 106	Expected		2.00	3.00		2.00	1.00		2.00				1.00	1.00	1.00	2.00	2.00		
	Actual		2.00	2.86		1.91	1.11		1.82				0.93	1.21	0.98	1.81	0.00 ^a		
61 of 106	Expected			3.00		1.00	2.00		1.00		1.00		1.00		1.00	3.00	2.00	1.00	1.00
	Actual			2.78		0.98	2.11		0.96		0.87		0.88		0.98	2.68	0.00 ^a	1.00	0.94
62 of 106	Expected			2.00		1.00	1.00		2.00		1.00		1.00	1.00	1.00	2.00	2.00	1.00	2.00
	Actual			1.82		1.08	1.17		1.84		1.03		0.83	1.20	1.00	1.74	0.00 ^a	1.00	1.81
63 of 106	Expected	1.00		2.00		1.00	2.00		1.00		2.00		1.00	1.00	1.00	1.00	1.00	1.00	2.00
	Actual	1.00		1.89		1.10	2.07		0.77		1.72		0.88	1.12	0.95	0.94	0.00 ^a	1.02	1.93
64 of 106	Expected	2.00	1.00	3.00	1.00		1.00		2.00	1.00	1.00		1.00	1.00	1.00		1.00		1.00
	Actual	1.96	1.08	3.13	0.44 ^c		1.07		1.74	0.93	1.09		0.78	1.00	0.80		0.00 ^a		0.96
65 of 106	Expected	2.00	1.00	3.00	1.00		2.00		1.00	1.00	4.00				1.00				1.00
	Actual	1.91	1.12	2.72	0.51 ^c		2.16		1.02	1.00	3.67				1.00				0.94
66 of 106	Expected	1.00	2.00	1.00	1.00	1.00	1.00		1.00	2.00	4.00				2.00				1.00
	Actual	1.12	2.12	1.00	0.54 ^c	0.95	1.19		0.56 ^b	1.96	3.70				1.94				0.65 ^b
67 of 106	Expected		1.00	1.00		2.00	1.00		1.00	1.00	3.00		1.00		2.00	2.00		1.00	1.00
	Actual		1.00	1.04		1.89	1.10		0.66 ^b	0.98	2.66		0.87		1.84	1.71		0.79	0.63 ^b
68 of 106	Expected		1.00	1.00		2.00			1.00	2.00	3.00		1.00	1.00	1.00	3.00		1.00	
	Actual		1.12	0.94		1.71			0.87	1.86	2.73		1.03	1.14	1.00	2.79		1.14	
69 of 106	Expected			3.00		1.00				1.00	2.00		2.00	1.00		4.00	1.00	1.00	1.00
	Actual			2.75		1.00				0.99	2.00		1.83	1.18		3.60	0.00 ^a	1.05	0.94
70 of 106	Expected			3.00					1.00	1.00	2.00		1.00	1.00		4.00	1.00		2.00
	Actual			2.83					1.22	1.14	1.92		1.00	0.95		3.76	0.00 ^a		1.39 ^b
71 of 106	Expected	1.00		4.00		1.00	1.00		1.00			1.00	1.00		1.00	3.00	1.00		2.00
	Actual	0.93		3.73		1.13	1.07		1.09			0.96	1.00		1.15	2.98	0.00 ^a		1.06 ^b
72 of 106	Expected	2.00	2.00	2.00		1.00	2.00		1.00			1.00	1.00		1.00	2.00			2.00
	Actual	2.00	1.93	1.75		1.09	2.01		1.01			0.72	0.79		0.94	1.72			1.73

Table 2 - Amino Acid Analysis

Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
73 of 106	Expected	2.00	4.00	2.00		1.00	2.00		1.00			1.00	1.00	1.00	1.00				1.00
	Actual	2.12	4.01	1.95		0.98	2.18		0.65 ^b			0.86	1.00	1.28	0.98				0.53 ^b
74 of 106	Expected	1.00	4.00	1.00	1.00		1.00		2.00	1.00	1.00		1.00	2.00					2.00
	Actual	1.09	3.79	0.94	0.54 ^c		1.18		1.09 ^b	0.97	0.85		0.89	2.00					1.05 ^b
75 of 106	Expected		2.00	2.00	1.00	1.00	1.00		2.00	2.00	1.00			4.00					1.00
	Actual		2.00	2.07	0.53 ^c	0.97	1.21		1.39 ^b	1.73	0.99			3.73					0.51 ^b
76 of 106	Expected	1.00	1.00	1.00		1.00	2.00		2.00	3.00	1.00			3.00					2.00
	Actual	1.00	1.10	1.01		0.98	1.94		0.82 ^b	2.71	0.91			2.90					0.95 ^b
77 of 106	Expected	1.00	1.00	1.00		1.00	2.00		2.00	1.00				4.00		1.00			2.00
	Actual	1.07	1.07	1.00		1.02	2.18		1.38 ^b	0.97				3.90		0.97			1.46 ^b
78 of 106	Expected	4.00	1.00			1.00	1.00		2.00	1.00				3.00	1.00	1.00			2.00
	Actual	3.73	1.04			0.95	1.16		1.33 ^b	0.93				2.70	1.00	0.94			1.34 ^b
79 of 106	Expected	3.00	3.00			1.00	2.00		2.00					3.00	1.00	1.00			1.00
	Actual	2.82	2.73			1.00	2.11		1.81					2.83	1.05	1.09			1.04
80 of 106	Expected	4.00	4.00	1.00		3.00	2.00		1.00					1.00	1.00				
	Actual	3.71	4.18	0.92		2.77	2.15		1.00					1.15	1.01				
81 of 106	Expected	1.00	3.00	3.00		3.00	2.00		1.00				1.00	1.00				1.00	1.00
	Actual	1.00	2.87	2.88		2.86	1.95		0.91				1.15	1.21	0.00	0.00	0.00	0.88	1.07
82 of 106	Expected	1.00		4.00		3.00	1.00			1.00	1.00		1.00	2.00	1.00			1.00	1.00
	Actual	1.00		3.71		2.78	1.22			0.96	0.95		0.78	1.96	1.00			0.98	0.76
83 of 106	Expected	1.00		5.00		2.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00			1.00	1.00
	Actual	1.00		4.80		1.87	1.03	1.02		0.92	1.07		0.72	1.03	0.96			0.86	0.76
84 of 106	Expected	2.00		4.00		2.00	1.00	2.00		1.00	2.00			1.00		1.00	1.00		
	Actual	2.00		3.80		1.89	1.05	1.99		0.98	1.71			1.10		0.95	0.00 ^a		
85 of 106	Expected	2.00		4.00		2.00		2.00	1.00	2.00	1.00	1.00				1.00	1.00		
	Actual	1.93		4.00		2.00		2.02	1.01	1.77	1.04	0.98				0.99	0.00 ^a		
86 of 106	Expected	1.00		2.00		2.00	1.00		2.00	2.00	1.00	1.00		1.00		2.00	1.00	1.00	
	Actual	1.00		1.75		1.72	1.14		1.78	1.79	0.79	0.93		1.06		1.74	0.00 ^a	0.73	
87 of 106	Expected			2.00		1.00	2.00		3.00	3.00			1.00	2.00		2.00		1.00	
	Actual			1.89		1.00	2.08		1.35 ^b	2.70			1.05	2.01		1.72		0.78	
88 of 106	Expected		1.00			3.00	2.00		2.00	1.00	1.00		1.00	3.00		3.00			
	Actual		1.19			2.75	2.22		0.50 ^b	1.00	0.86		1.13	3.00		2.80			
89 of 106	Expected	1.00	1.00	1.00		4.00	2.00		1.00	1.00	1.00		1.00	2.00		2.00			
	Actual	0.93	1.12	0.78		3.85	1.99		0.84	0.98	0.78		1.07	2.00		1.73			
90 of 106	Expected	1.00	3.00	1.00		4.00	2.00		1.00	1.00	1.00		1.00	1.00		1.00			
	Actual	1.09	2.87	0.91		3.82	2.00		0.95	1.02	0.90		1.09	1.08		1.10			
91 of 106	Expected	1.00	3.00	1.00		4.00	2.00		1.00	1.00	1.00		1.00			2.00			
	Actual	1.19	2.80	0.93		3.72	2.12		0.95	1.02	1.00		0.98			1.93			
92 of 106	Expected		3.00			4.00	2.00			2.00	1.00	1.00	2.00			1.00			1.00
	Actual		2.79			3.63	1.72			1.76	1.09	1.18	1.73			0.94			1.00
93 of 106	Expected		3.00	1.00		3.00	2.00			2.00	1.00	1.00	1.00			1.00			1.00
	Actual		2.78	1.10		2.65	2.10			1.80	1.00	0.85	0.86			1.11			0.79
94 of 106	Expected		2.00	1.00		1.00	1.00			3.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00
	Actual		1.86	0.90		0.75	1.20			2.79		0.91	0.88	1.06	1.01	1.00	0.00 ^a	0.98	1.77
95 of 106	Expected	2.00	2.00	1.00			2.00			2.00	1.00			1.00	2.00		1.00	1.00	2.00
	Actual	1.74	1.95	1.12			2.00			2.00	0.96			1.10	1.78		0.00 ^a	1.04	1.76
96 of 106	Expected	2.00	1.00	1.00			1.00		1.00	1.00	2.00				3.00		1.00	2.00	2.00
	Actual	1.91	1.18	0.95			1.22		0.95	1.02	1.80				2.84		0.00 ^a	2.00	1.87

Table 2 - Amino Acid Analysis																			
Peptide		Ala (A)	Arg (R)	Asx (N,D)	Cys (C)	Glx (Q,E)	Gly (G)	His (H)	Ile (I)	Leu (L)	Lys (K)	Met (M)	Phe (F)	Pro (P)	Ser (S)	Thr (T)	Trp (W)	Tyr (Y)	Val (V)
97 of 106	Expected	2.00	1.00	1.00	1.00	1.00	2.00		1.00		1.00		1.00		2.00	1.00	1.00	1.00	1.00
	Actual	1.87	1.16	1.12	0.55 ^c	1.14	2.16		0.99		1.15		1.00		1.84	0.99	0.00 ^a	0.96	1.05
98 of 106	Expected		2.00	3.00	1.00	3.00	1.00		1.00		1.00		1.00		1.00	1.00	1.00	1.00	
	Actual		2.00	2.76	0.57 ^c	2.82	1.13		0.98		0.93		0.93		0.89	1.01	0.00 ^a	0.93	
99 of 106	Expected		1.00	3.00	1.00	5.00	1.00		1.00	1.00		1.00	1.00			1.00	1.00		
	Actual		1.14	2.87	0.60 ^c	4.92	1.19		0.84	0.86		1.00	0.93			1.00	0.00 ^a		
100 of 106	Expected		2.00	3.00		5.00			2.00	1.00		1.00				1.00	1.00		1.00
	Actual		2.13	2.92		5.01			1.77	0.79		0.78				0.94	0.00 ^a		0.77
101 of 106	Expected		1.00	1.00		6.00	1.00		1.00	1.00	2.00	1.00				1.00	1.00		1.00
	Actual		1.18	0.93		5.68	1.18		0.87	1.00	2.02	1.03				1.08	0.00 ^a		0.93
102 of 106	Expected		2.00			3.00	1.00		1.00	1.00	4.00			1.00		1.00	2.00		1.00
	Actual		2.01			2.69	1.21		0.84	0.97	3.77			1.08		0.90	0.00 ^a		0.93
103 of 106	Expected	1.00	3.00	1.00		2.00	1.00			2.00	4.00			1.00			1.00		1.00
	Actual	1.00	2.73	0.87		1.79	1.24			1.79	3.76			1.10			0.00 ^a		0.93
104 of 106	Expected	3.00	2.00	2.00						2.00	2.00	1.00		2.00			1.00	1.00	1.00
	Actual	3.00	2.18	2.04						1.93	2.29	0.83		2.28			0.00 ^a	0.95	0.93
105 of 106	Expected	3.00	1.00	3.00		1.00				2.00	2.00	1.00	1.00	1.00				1.00	1.00
	Actual	2.89	1.18	2.80		1.05				2.00	1.95	0.99	1.15	1.15				0.86	1.02
106 of 106	Expected	3.00	1.00	2.00		1.00	1.00			1.00	3.00	1.00	2.00	1.00	1.00				
	Actual	2.72	0.98	1.83		0.97	1.22			0.93	2.74	0.81	1.72	1.00	1.02				

^aTrp was completely destroyed during hydrolysis
^bVal-Ile, Val-Val, Ile-Ile and/or Ile-Val bonds were only partially destroyed during hydrolysis
^cCys was partially destroyed during hydrolysis

Date: 30 APR 2007

Signature: Signature on File

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